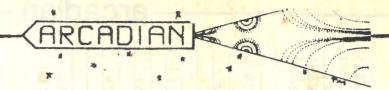Those of you who are starting with us with this volume may be interested in a
very short history. The Bally Arcade was first advertised by the Chicago mail
order house of JS&A in such magazines as Popular Science, Scientific American,
the airline freebies and a couple of others in Sept/Oct. of 1977. In the two
page ad, delivery was promised in four weeks and the expansion unit was indi-
cated to be available in 6 weeks, so that a complete and highly sophisticated
computer would be shotly available at a $600 price range. The Tiny BASIC
showed up in October 1978, and I started this subscription newsletter in Nov.
We have yet to see the expansion unit (Add On)(Level III), but in the last year
a number of doors have been unlocked in the Tiny BASIC and subscribers, as a
group, are the only ones able to expand their programs and enhance their oper-
ations. This Newsletter is the only established source of free programs, and
provides a place for those wishing to market their outputs.

PRINTER OUTPUT.   I GUESS YOU NOTE THE UNUSUAL TYPE IN THIS PARAGRAPH; THIS IS
BEING TYPED VIA MY NEW Comprint 912S PRINTER UNDER DIRECT CONTROL OF THE BALLY.
I HOPE TO PRINT MORE OF THE ARCADIAN THIS WAY IN THE FUTURE - THIS IS A SAMPLE
TO WHET YOUR APPETITE. THIS MACHINE WAS ADVERTISED ON THE INSIDE FRONT COVER OF
THE JULY KILOBAUD. COST IS $699 RETAIL, BUT I HAVE A SOURCE FOR IT AT $525
FOB SAN JOSE (PLUS CAL TAX IF APPLICABLE).   FULL DETAILS NEXT TIME.

SAUCER BATTLE

BY JOHN HURST

9/79

10 - 100	Initialize and Input mode of play. Draw stars and print scoring.
200 - 290	Draw saucers and allow control by hand controls. Two player game.
300 - 495	One player against computer. Draw saucers, left for player, right for computer. Computer random positioning and movement. Set ups for computer or TR(1) firing.
500 - 530	Set ups for TR(1) or TR(2) firing in two player mode.
540	Back to two player program if neither saucer fires LASER.
600 - 680	Fire left saucer's LASER,if a hit goto blowup routine, if not go back to one or two player routine, whichever is in use.
700 - 780	Same as 600, but for right saucer.
800 - 860	Blowup right saucer, back to main program in use. Upgrade score.
900 - 960	Blowup left saucer, back to main program in use. Upgrade score.
1000 -1010	Print GAME OVER. If GO key is pressed, goto line 10 to play again.

This game can be played by two or one, (against the computer).
Difficulty of hitting target can be selected, 0-4, 0 being the hardest.
Amount of LASER blasts and Max Score to win can be selected. If one player
option is selected, accuracy of the computer can be set, 0→2, 0 being the
most accurate. If the computer fires when accuracy is 0, it will not miss.
If both triggers are pulled at the same time, neither will fire, in two
player option. If remaining LASER blasts are five or less, an open hole
will appear in the center of the saucer that is low on charge. When all
charge for LASER is depleted for one saucer, he can no longer fire. If
both saucers are depleted of charge, or Max Score is reached by one saucer,
game is over. To play again just press GO key.
     The memory use of this game is very close to the max available to the
Bally, so care should be used when entering this program. Use no spaces unless
necessary, the listing may have extra spaces due to my typing. If you
don't need them, don't use them. Also deleting lines 1 - 5 can save some
memory if needed. Good Luck.

John R. Hurst

PROGRAM NAME SAUCER BATTLE

```
Line #   Statement(s)
1     . "SAUCER BATTLE"
2     .
3     . BY JOHN HURST
5     . 9/79
10    F=0;G=0;I=0;J=0;NT=1
20    CLEAR;BC=0;FC=0;A(0)=0;
      A(1)=0;A(2)=126;A(3)=6
30    INPUT"DIFFICULTY:0-1?" N
40    PRINT "HOW MANY
50    INPUT"LASER BLASTS?" U
60    INPUT"MAX SCORE?" H
70    INPUT"1 OR 2 PLAYERS?" L;
80    IF L=1 INPUT"ACCURACY OF
      COMPUTER:0-2 ?" M
90    CLEAR;FOR A=1TO50;B=RND
      (130)-65;C=RND(88)-44
100   BOX B,C,1,1;NEXT A;CK=
      -17;CY=32;PRINT "SCORE:"
      #B,I;IF L=1 GOTO 300
200   K=KN(1)÷4-6;D=KN(2)÷4-6
210   BOX-75,K,4,4,3;BOX75,D,4,
      4,3
220   IF F>=U-5 BOX-75,K,2,2,3
230   IF G>=U-5 BOX 75,D,2,2,3
240   IF E>=U-5 BOX-75,K,2,2,3
250   IF G>=U-5 BOX-75,D,2,2,3
260   BOX-75,K,4,4,3;BOX75,D,4,
      4,3
270   IF E=U IF G=U GOTO 1000
280   IF(TR(1))-(TR(2))GOTO 500
290   GOTO 200
300   D=RND(76)-38
310   K=KN(1)÷4-6;D=D+RND(10)-5
320   IF D>25 D=25
330   IF D<-38 D=-38
340   BOX-75,K,4,4,3;BOX75,D,4,
      4,3
350   IF E>=U-5 BOX-75,K,2,2,3
360   IF G>=U-5 BOX 75,D,2,2,3
      4,3
370   IF F>=U-5 BOX-75,K,2,2,3
380   IF G>=U-5 BOX 75,D,2,2,3
390   BOX-75,K,4,4,3;BOX75,D,
      4,3
400   IF F=U IF G=U GOTO 1000
410   IF F=U GOTO 440
420   IF TR(1)GOTO 600
430   IF G=U GOTO 310
440   IF M=1 GOTO 480
450   IF M=2 GOTO 490
460   IF K>D-1 IF K<D+1 GOTO 700
470   GOTO 310
480   IF K>D-3 IF K<D+3 GOTO 700
485   GOTO 310
490   IF K>D-6 IF K<D+6 GOTO 700
495   GOTO 310
500   IF F=U GOTO 530
510   IF TR(1) GOTO 600
520   IF G=U GOTO 200
530   IF TR(2) GOTO 700
540   GOTO 200
600   BOX-75,K,4,4,3;BOX75,D,4,4,3
610   F=F+1;LINE-73,K,4;LINE
      75,K,3
620   A(16)=255;A(21)=255;
      A(23)=44
630   LINE-73,K,4;LINE75,K,3;
      LINE0,0,4;A(16)=0;A(21)=0;
      A(23)=0;IF N=1GOTO 670
640   IF K>D-2 IF K<D+2 GOSUB800
650   BOX-75,K,4,4,2;BOX75,D,4,
      4,2;IF L=1 GOTO 300
660   GOTO 200
670   IF K>D-3 IF K<D+3 GOSUB 670
680   GOTO 650
700   BOX 75,D,4,4,1;BOX-75,K,
      4,4,1
710   G=G+1;LINE73,D,4;LINE -75,
      D,3
720   A(23)=255;A(21)=255
730   LINE 73,D,4;LINE-75,D,3;L1
      NE 0,0,4;A(21)=0;A(23)=0;
      IF L=2 IF N=1 GOTO 770
740   IF D<K-2 IF D<K+2 GOSUB900
750   BOX 75,D,4,4,2;BOX-75,K,4,
      4,2;IF L=1 GOTO 300
760   GOTO 200
770   IF D<K-3 IF D<K+3 GOSUB900
780   GOTO 750
800   FOR E=1 TO 10;A(9)=37;
      A(2)=90
810   FOR P=0 TO 1
820   BOX 75+RND(4)-2,D+RND(4)-2
      ,2,2,3;NEXT P
830   MU="";NEXT E;A(2)=126;
      A(9)=50
840   J=J+1;CX=-77;CY=32;PRINT
      #16,J
850   IF J=H GOTO 1000
860   BOX 75,D,10,10,2;RETURN
900   FOR E=1TO10;A(9)=4;FC=90
910   FOR P=0 TO 1
920   BOX-75+RND(4)-2,K+RND(4)
      -2,2,2;NEXT P
930   MU="";NEXT E;FC=126;A(9)
      =50
940   I=I+1;CX=-17;CY=32;PRINT,I
950   IF I=H GOTO 1000
960   BOX-75,K,10,10,2;RETURN
1000  CX=-23;CY=0;PRINT"GAME
      OVER
1010  R=KP;IF R=13 GOTO 10
```

ANOTHER PRINTER has been successfully connected to the Bally, writes John Hurst. He has a Victor Model 1250 that uses 3 3/4" wide adding machine tape, with 34 characters per line. John sent some sample material, but the print was blue and wouldn't reproduce. He also needs the little converter that was shown on p.47 of Vol. 1.

NOSTALGIA for those who can recall some of the older Bally gaming machines. This antique was included in an auction held at Disneyland in late November.

Bally Sparkplug Paying Horse Race Game.

DECIMAL DIVISION is a version by Laurence Gallant that will give you up to 32,676 decimal places (the variable Z).

PROGRAM NAME: DECIMAL DIVISION

```
1  .DECIMAL DIVISION
5  .BY L. GALLANT
10 INPUT X,Y,Z
20 A=X÷Y
30 PRINT #1,A,#1;".",
40 FOR B=1 TO Z
50 E=(RM*10)÷Y
60 PRINT E,
70 NEXT B
```

LOGO shown at the head of page ONE is based on an idea by Guy McLimore, and embellished by myself. If you'd like to see it in action (literally) and in living color, the program is included.

PROGRAM NAME: LOGO

Line #	Statement(s)
10	CLEAR
20	&(9)=37
30	BC=250;FC=7
40	FOR A=1 TO 150
50	H=RND(160)-80;V=RND(88)-44
60	BOX H,V,1,1,RND(2)
70	NEXT A
80	&(9)=85;&(1)=250
90	&(2)=108;&(11)=250
100	CX=-44;CY=0
110	PRINT"ARCADIAN
120	LINE 0,0,4
130	FOR Q=0 TO 35 STEP 2
140	LINE 75,Q,3;LINE 0,0,4
150	LINE 75,-Q,3;LINE 0,0,4
160	NEXT Q
170	L=7;FOR Z=48 TO 51
180	BOX -Z,0,1,L,1
190	L=L-2
200	NEXT Z
210	BOX -22,0,56,9,3
220	FOR Q=0 TO 35
230	LINE 75,Q,3;LINE 0,0,4
240	LINE 75,-Q,3;LINE 0,0,4
250	NEXT Q
260	GOTO 220

PROGRAM REVIEWS are being covered in detail in this first issue of Vol.2 in order to act as a reference base for future material. Dick Houser 635 Los Alamos Ave., Livermore, CA 94550 is heading up a team consisting of

Steve Wilson   18015 Sally Ave.   Cleveland OH 44135
Don Daniels   3 Apex Road   Melville NY 11746
Bill Rueger   336 Beach 38th St   Far Rockaway NY 11691
Phil Shafer   3708 Big Horn Trail   Plano TX 75075

These gentlemen will accept programs which are offerred FOR SALE by various vendors, and will subject the programs to hands-on operation, review these and then report their findings on the quality of subject matter, documentation, etc., per the form shown on page FOUR. The reviews that appear in the ARCADIAN will be abbreviated to show only the rating answers. Program vendors are being contacted directly by Dick, based on ads run previously. If you are a 'new' vendor, please drop him a line if you are interested in having impartial reviews of your product.

CORRECTIONS of previous programs:
Dick Nitto, who wrote the article "Have a Ball with Bally" in the latest KILOBAUD writes about dropouts in two of the lines in the program he had included there- They should read

```
270  GOSUB 440; IF G=1 GOTO 330
280  IF S=0 R=R+1; GOTO 330
```

He also writes that an easier version is possible if you substitute

```
260 IF X<3 IF X>-3 IF Y<3 IF Y>-3 GOTO 300
440 IF X<4 IF X>-4 IF Y<4 IF Y>-4 A=520; G=1; GOTO 460
```

MICROTREK needs to be corrected to

```
200 CLEAR; C = E-S; IF C 0 C=-C
220 Q=0; IF C 2 IF G 2  Q=1
```

and Bill Templeton suggests the following color commands for enhancement. Insert them in each line just before the RETURN command -

```
700  FC = 0;
710  FC = 90;
720  FC = 172;
730  FC = 133;
```

SPACE WAR as printed on p.79 had two points needing work, writes John Johnson. The asterisk (*) in lines 300 and 500 should be changed to the x for multiplication. In line 820, the Y-5 should be T-5

RESEQUENCING apparently does not work on all machines. We noted on p. 25 that there were at least two variations of Bally software. We'll work on this to see what changes might have to be made.

CHECKER as modified on p.90 has a typo of mine, in that the @(5) in line 260 should be @(S).

TUTORIAL (3) on p.41 is called a real space saving help by John Collins, who suggests adding an equals sign to line 9030 so that it reads

```
9030 PRINT #1,"=",%(20076 + (Zx2))
```

REVIEW FORM

This form is used by the reviewer in doing his job, showing what things he will be looking for and the gradations possible. The very bottom of the form is what will appear in the ARCADIAN. You can refer back to this page to refresh your memory on the ratings.

Source Code _____ Cassette Code _____ Program Code _____ BPRF4

BALLY PROGRAM REVIEW

Date:_____
Name of Program:_____Cassette Name_____
Description:_____
Source:_____Price_____
Reviewed by:_____Age:____

Circle score for each item 0 1 2 3 4 5 6 7 8 9   on scoring line.

PROGRAM DOCUMENTATION (PD)

No Instructions 0 1 2 3 4 5 6 7 8 9   Very Clear Description
                                       Listing,Flowchart,Instructions

PROGRAM POLISH (PP)

Sloppy, Amateurish 0 1 2 3 4 5 6 7 8 9   Professional

USE OF SPECIAL FEATURES (USF)

Minimal Used 0 1 2 3 4 5 6 7 8 9   Great Use of Features
                                    Graphics, Sound, Handles

LEVEL OF CHALLENGE (LC)

Not Challenging 0 1 2 3 4 5 6 7 8 9   Very Challenging

ORIGINALITY AND CREATIVITY (OC)

Adapted, Same Old Stuff 0 1 2 3 4 5 6 7 8 9   Totally Brilliant and Unique

LEVEL OF INTEREST (LI)

Boring 0 1 2 3 4 5 6 7 8 9   Fascinating

EDUCATIONAL VALUE (EV)

Little 0 1 2 3 4 5 6 7 8 9   Really Learn Facts
                              and Skills

EASE OF USE (EU)

Awkward, Inconvenient 0 1 2 3 4 5 6 7 8 9   Easy, Quick, Convenient

OVERALL VALUE (OV)

Almost Worthless 0 1 2 3 4 5 6 7 8 9   Everyone Should Buy
....
Name of Program:_____Cassette Name:_____
Description:_____
Source:_____Price_____
Reviewed By:_____Age:____
Ratings : PD=__ PP=__ USF=__ LC=__ OC=__ LI=__ EV=__ EU=__ OV=__ TP=__ SZ=___
Time to Play _____ For Ages _____ # of Players _____

```
"ARCADE DICE" by KLAUS GRISMAYER

1.ARCADE DICE
2.BY K.F.G.
3.RETURN
5 CLEAR;NT=0;PC=84;BC=24
10 PRINT;PRINT" * * * ARCADE DICE * * *
20 PRINT;PRINT;PRINT" 1 ELECTRONIC DICE
30 PRINT;PRINT" 2 ELECTRONIC CRAPS GAME
40 PRINT;PRINT;PRINT"    MAKE SELECTION
50 IF@(23)=8 CLEAR;GOTO 100
60 IF@(22)=8 CLEAR;K=1;T=0;GOTO150
70 GOTO50
100 GOSUB780;INPUT"# OF PLAYERS:"P;IF P>4 P=4
110 IF P=1 K=1;GOSUB 800;GOTO110
120 GOTO700
140 CX=-75;CY=-4;RETURN
150 NT=1
160 BOX 0,30,80,9,2
170 BOX 0,40,160,8,2
180 N=((KN(1)+128)÷28)+1
190 IF@(22)=16 GOTO 5
210 GOSUB140;PRINT" BET:$",#3,N,
210 IF TR(1)=0 GOTO 180
220 GOSUB 800
230 GOSUB 500
240 S=L+R
250 IF S=7 GOSUB 510;GOTO600
260 IF S=11 GOSUB 510;GOTO600
270 IF S=2 GOSUB 520;GOTO400
280 IF S=3 GOSUB 520;GOTO400
290 IF S=12 GOSUB 520;GOTO400
300 GOSUB500;PRINT"ROLL AGAIN",
310 GOSUB800
320 GOSUB500
330 A=L+R.
340 IF A=S GOSUB 530;GOTO600
350 IF A=7 GOSUB 540;GOTO400
360 GOTO 310
400 GOSUB 140;PRINT" # # # YOU LOSE # # #
410 NT=8
420 MU=49;MU=51;MB=53;MU=98;MU=49;MU=48;MU=53;
    MU=98;MU=49;MU=48;MU=48;MU=48
430 NT=0
440 CX=-75;CY=-40;PRINT" LOST $",#3,N,
450 N=M
460 GOTO550
500 CX=-20;CY=-30;RETURN
510 PRINT"A NATURAL",;RETURN
520 PRINT"CRAPS",;RETURN
530 PRINT"A MATCH   ",;RETURN
540 PRINT"CRAP OUT   ",;RETURN
550 T=T+N
560 CX=0;PRINT"YOU HAVE ",#3,T,
570 FOR Z=1TO100
580 T=T+1;NEXTZ;I=0
590 GOTO015
600 GOSUB 140;PRINT"$$$$$$$$ A WINNER $$$$$$$$
610 NT=8
620 FOR Z=1TO2
630 MU=51;MU=48;MU=53;MU=48;MU=51;MU=52;
    MU=48;MU=53;MU=48;MU=48;MU=48
640 NEXT Z;NT=0
650 CX=-75;CY=-4;PRINT" WIN $",#3,N,
660 GOTO550
700 FOR K=1TOP+3;@(K)=0;NEXTK
710 FOR K=1TO P
720 GOSUB780;PRINT"PLAYER #",#2;K," ROLLS",
730 GOSUB800;@(K)=L+R;NEXTK
740 FOR K=1TO P
750 IF@(K)>@(K+1) IF@(K)>@(K+2) IF@(K)>@(K+3)
    GOSUB780;PRINT"PLAYER #",#2,K," WINS ",;
    GOTO770
760 NEXTK
770 FOR Z=1TO200;I=I+1;NEXTZ;I=0;GOTO770
780 CX=-40;CY=-4;RETURN
800 N=7-((KN(K)+28)÷42)
810 NT=-1;IF@(22)=42 GOTO 5
820 CX=0;CY=-4;PRINT"# OF ROLLS:",#2,M,
830 IF TR(K)=0 GOTO800
840 NT=-20;FOR D=1TON;RETURN
850 BOX-40,0,44,44,1;BOX-40,0,42,42,2
860 L=RND(6);X=-40;GOSUB890+(L×10)
870 BOX40,0,44,44,1;BOX40,0,42,42,2
880 R=RND(6);X=40;GOSUB890+(R×10)
890 NEXTD;NT=-1;RETURN
```

LINES 800 - 830 - selects number of times dice roll
LINES 840 - 890 - roll dice (random selection) and draws frame for dice
LINES 900 - 950 - select dot combinations
LINES 960 - 990 - draw dots on dice

ARCADE DICE is played with the hand controls. First menu selection allows up to four players to play in rotation, just enter the number of players, then press go. Number of rolls is selected by knob on hand control, pulling the trigger will begin the rolling. After the combination is displayed, control shifts to the next hand control. After everyone has thier turn, the winner is immediately selected.

The second menu selection allow player to place bet with knob and trigger, then number of rolls is selected as above. Score is automatically indicated.

To return to menu, press Zero (0) on keypad. This can only be done during selection stages of rolls or bet, which reset automatically.

This program can be modified using the separate sections in other combinations, or modifying the size and location of the dice. Electronic dice can replace regular dice in board games, by keeping track of whose turn it is (everyone gets thier own control, but cannot move out of turn).I hope this will give someone certain possibilites.

YOURS TRULI,

KLAUS GRISMAYER
320 Hanna Ave.,Bldg.3,Apt.8
LOVELAND, OH   45140

```
900GOSUB960;RETURN
910GOSUB970;RETURN
920GOSUB960;GOSUB970;RETURN
930GOSUB970;GOSUB980;RETURN
940GOSUB960;GOSUB970;GOSUB980;RETURN
950GOSUB970;GOSUB980;GOSUB990;RETURN
960BOX X,0,6,6,1;RETURN
970BOX X+12,12,6,6,1;BOX X-12,6,6,1;RETURN
980BOX X-12,12,6,6,1;BOX X+12,-12,6,6,1;
    RETURN
990BOX X-12,0,6,6,1;BOX X+12,0,6,6,1;RETURN
```

Keep all the spacing tight (except inside the quotation marks, they should be as shown above) even though it was typed a little inconsistently. The program uses almost all of the BASIC UNIT's memory. The command PRINT SZ must indicate at least 14, if not, eliminate lines 1 & 2.

The program operates as follows:

LINES #1 - 70 - set up the menue
LINES 100 - 120 - selects the number of players for electronic dice
LINES 140 - 210 - sets up player bet for craps game
LINES 220 - 360 - compares the numbers rolled on the dice, determining both winning and losing combinations
LINES 400 - 460 - is the loser routine for craps
LINES 500 - 540 - specify winning and losing combinations
LINES 550 -590 - give player total and returns for next bet
LINES 600 -650 - is the winner routine for craps
LINES 700 - 730 - enters each player's roll on electronic dice
LINES 740 - 780 - selects the winner for electronic dice (highest combination)

MACHINE ACTING UP? Most of us have had problems of intermittent failure, garbage on the screen, keypad or controller malfunction, etc. Bally has set up a number of service centers around the country, primarily to take care of their commercial arcade machines, and most problems are solved by a simple swap of units. New units didn't always work and so some subscribers have had 5,6, or 7 units before they got a good one. I'm on #3 myself. Gunther Dorth, 154 Cornell Ave., Des Plaines, IL 60016 has volunteered to act as a clearing house, requesting information from those of you who have had problems, had them solved, still have them, etc., etc. When writing, send him your serial number.

POKE program that does funny things was sent in by Dick Martin. It keeps changing its own line numbers, and other stuff....

```
10 INPUT A
20 %(A)=A
30 TV = %(A)
40 GOTO 10
```

TAPE PROGRAM PURVEYORS might be interested in trying this idea I had the other day - How about a vocal description prior to the program itself, and then some vocal instructions after the program has been loaded. Put some suitable instructions where they will help.

ADS: Sell Bally Computer System complete, includes Panzer/Baron, Clowns, Breakout, Football, Star Battle, Blackjack, Baseball and 4 joysticks. Best offer about $300. Brand New. Mark Turmell, 4691 S. Elm Dr. Bay City, Mich, 48706
517-684-9189

Listing only for Chuck-a-Luck, a one-player gambling game with graphics. $1 and self-addressed envelope to Al Nowak, 10632 S.Kenneth, Oak Lawn IL 60453

CORRECTION to the Handbook (sample page on p.83) noted by Chuck Thomka. On p.109, the labels of columns MC∅ and MC1 should be reversed. The same table is properly shown on p.123

EIGHT

ARCADIAN
Robert Fabris, PRINTER
3626 Morrie Dr.
San José, CA 95127

FIRST CLASS